Avian Influenza HPAI H5N1 in Dairy

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Review of Events

- A multistate outbreak of HPAI A(H5N1) avian influenza in dairy cows was first reported on March 25, 2024.

- The outbreak began in the Texas-New Mexico milkshed and soon spread to other states:

- On April 1, 2024 Centers for Disease Control and Prevention (CDC) confirmed one human HPAI A(H5N1) infection in a dairy farm worker in Texas

Current Situation

- 16 states affected
- 928 herds (as of 1/20/25)
- 67 human cases
  - 40 dairy, 23 poultry, 1 unknown, 3 other
  - 1 death

Regulatory Response

- Documented human infections linked to cattle infections, though mild, highlight the need for enhanced biosecurity and monitoring.
- Animal
  - USDA
  - Mandatory milk testing
- Human
  - CDC
  - current risk to the U.S. public is considered low
  - Human monitoring is limited
  - persons with exposure to infected animals or contaminated materials, including raw cow's milk, are at higher risk for A(H5N1) virus infection and should take recommended precautions
    - personal protective equipment or PPE
    - self-monitoring for illness symptoms
    - if symptomatic, seek prompt medical evaluation for testing and antiviral treatment

Farm/Cow Impact

- Variable farm impact
- Case description
  - reduced feed intake and rumen motility in lactating cows
  - decreased milk production
  - thick yellow milk
- Animal recovery in 2-3 weeks with supportive treatment
  - About 10% of cows do not fully recover
- Preliminary findings suggest antibody resistance among infected cows
- Future milk productivity unknown

Sources of Transmission

- Exposure to infected milk
  - Parlor
  - Sick pens
  - Other
- Human exposure
- Continued research needed

Human Impact

- Flu-like symptoms
- Conjunctivitis (pink eye)
- Mild symptoms
- Recovery in 1 week

Human Impact

- Estimation of human impact limited
- Limited access to workers
  - Perceived risk among owners

Research Challenges

- Challenges related to farm participation in directed research
- Perception of business risk among owners
- Concern over anonymity & confidentiality

Texas A&M Project

- CDC funded
- Seroprevalence study
- Worker exposure survey
- IRB approved
- Total anonymity and confidentiality maintained of farm, owner, and worker

Texas A&M Project

- Producers and associations have provided input and guidance
- On-farm data collection
  - Survey administered
  - Samples collected from workers
  - Participant incentives

Texas A&M Project

- Seeking affected farms in impacted states for participation in project

Contact

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https://usacenter.tamu.edu/Events1/2025pandemicconference.html